WHAT IS CLAIMED IS:

1. A method of polishing a material comprising:

exposing said material to a slurry which contains an abrasive and an organic oxidant being hydroxylamine.

2. The method of claim 1 wherein said abrasive is alumina.

3. The method of claim 1 wherein the pH of said slurry is acidic.

4. The method of claim 3 wherein the pH of said slurry is between 0 and 1.

5. The method of claim 1 in which said slurry contains
alumina,
oxidant,
complexing agent, and
surfactant.

6. A method of polishing a material comprising:

exposing said material to a slurry which contains an abrasive and an organic oxidant, said organic oxidant being chosen from the groups consisting of hydroxylamine, hydroxylamine derivatives, and hydroxylamine salts.